

25X1A9a

MEMORANDUM FOR: [REDACTED]

20 December 1971

FROM

:

25X1A5a2

SUBJECT

:

Altitude and Climb Capability

1. I have reviewed memorandum A-3-253-APEO-188 and concur with the contractor conclusions presented therein. There were certain non-standard conditions noted in the flight test conditions:

a. Take off weight was 79.6 pounds instead of the design gross weight.

b. Density altitude was slightly higher than standard during the test flight.

c. A 22 degree pitch propeller was used rather than the standard 26 degree pitch propeller. The principal effect of the 22 degree pitch propeller would be slightly improved climb performance, and slightly reduced efficiency at cruise.

d. A flight test configuration was used rather than the standard configuration. The test vehicle contained non-standard equipments and some minor aerodynamic deviations.

2. A review of the subject document concurs that performance corrections were made to the non-standard test data to compensate for deviations "a" through "d" listed above. These corrections properly presented results for a standard vehicle at standard atmospheric conditions and design weight. These corrected data showed a service ceiling of 11,100 feet. Extrapolation of Figure 3 of the subject memorandum indicates an absolute ceiling of 12,500 to 13,000 feet. This concurs with the contractor estimate and claim of 11,800 feet maximum altitude on a standard day.

3. The scope and quality of this contractor aerodynamic performance analysis meets or exceeds USAF or U. S. Navy requirements for reduction of substantiation test data.

cc: [REDACTED]

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